Space: The Crisis of Decision

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By Joshua Lederberg

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DECISIONS ARE being made now on the executive budget for the coming year. The public knows almost nothing of the personalities and political philosophy of the men in the middle echelons of the Bureau of the Budget. Yet they play a decisive role in the hard choices that must be made among competing values. The President has the choice of which programs will be implemented, which deferred.

Among the crises of decision, the national space program must be the source of some of Mr. Johnson's and his budgeteers' most painful dilemmas. Besides the committed Apollo program for "a manned landing on the moon within this decade," we have to consider the funding of the next steps in space, a policy that will have important consequences for our overall technical progress.

Three years ago, Sen. Clinton P. Anderson took testimony from a number of scientists concerning the merits of the Apollo program. My position at that time was in support of the program, which put me in the minority among scientists and educators. If my judgment were operative, other categories of work in space or on science might have higher priority, but tearing Apollo down could have no constructive result.

The expected scientific payoff from Apollo was incidental: unmanned scientific missions like Surveyor and Lunar Orbiter have been spectacular successes at a fraction of Apollo's cost. Some combination of possible military utility, anticipated impact on the rest of the world and our spectator-sport interest in astronautics may have been behind the choice of the manned landing among possible programs.

The choice has proven itself pragmatically. Would Congress have sustained its support for space merely for science? It has been cogently pointed out that the nominal goal of Apollo, the lunar landing, is merely the means to create our fundamental technological capacity to operate in space. We cannot readily assess how much more economically this could be achieved if it were attacked directly as the actual goal; if we could afford to dispense with the psychological focus of the living man in space.

THREE YEARS have seen enormous advances in political conscience and action. We now have plans and authorizations for education, health and social programs that were only dreams then. We are also told we cannot afford guns and schools and space — we must decide against some programs in order to match a limited supply of dollars.

The most disastrous response in space policy would be a sudden cancellation of existing contracts and suspension of programs in midcourse. The economic and enployment dislocations of such a rash reaction are a sufficient argument against it. But now that competing values are so strident, this cannot justify an indefinite absent-minded extrapolation of past approaches.

NASA Administrator James Webb is a thoughtful public servant, as he showed by refusing to be stampeded into early commitments about major space programs after Apollo. In the present budgetary crisis, the greatest weight will, we hope, be given to effective holding actions—the postponement of major new commitments in favor of preparations for prompt reaction when our finances and our technology catch up.

The Saturn boosters being perfected for Apollo will give us all the propulsive heft we need to explore the whole solar system. Unless we invent further requirements, propulsion need no longer dominate our technological effort. Rather it will be the sophisticated spacecraft — the automated instrumentation on the one hand, or the life-support for humans on the other—that will need to be perfected for the missions of the next decade.

And for long range missions, whether manned or not, we will need better telecommunications, which means electronics and power supplies on board and radio-telescopes of deeper penetrating power on earth.

These are strong hints for a balanced policy, since the new requirements for the exploitation and exploration of space are now far less specialized than before. In their technological foundations, automated instruments to conduct experiments efficiently via an interplanetary radio link parallel those for monitoring the brain waves of a hospital patient under surgery to control the dose of anesthetic. Compact power supplies will also energize an artificial heart.

A budgetary stretchout might force closer attention to the long-term needs and neglected intersections of missions of different agencies. If so, it may be a blessing in the long run.